

REMARKS

Claims 1-6 are pending in this application. Claims 1 and 5 have been amended herein.

Claim 1 has been amended for clarity to provide proper antecedent basis for “the thermosetting resin” in claims 3 and 4. Support for the amendment to claim 1 may be found on page 7, lines 12-13, which discuss “the thermosetting resin which is the binder component”.

Claim 5 has been amended to clarify that the binder component comprises a hardener. Support for this amendment may be found in the specification on page 7, lines 20-23, and page 8, lines 5-7.

The disclosure is objected to because of informalities (Office action point 1).

The objection is overcome by the amendment to the specification, as presented in the attached Substitute Specification. In the substitute specification, Table 1 is renumbered to page 10, and original pages 10-14 are renumbered as pages 11-15, respectively. Since this amendment does not change the actual text of the specification, no marked up version has been provided.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gardziella et al. (U.S. Patent No. 4,918,116) (Office action point 3).

Reconsideration of the rejection is respectfully requested.

The invention of the present application is characterized by the use of a resin containing a hardener and by the mixing carried out at a temperature lower than the reaction initiation temperature

Amendment under 37 CFR 1.111
Takeshi YAMANE

U.S. Patent Application Serial No. 09/867,565
Attorney Docket No. 010694

of the resin. It is to be noted that, as recited in claims 3 and 4, a resin having a reaction initiation temperature of 130 °C or more and a softening temperature of 80 to 120 °C is used.

As clarified in the amendment to claim 1, the binder component is a thermosetting resin comprising a hardener. That is, the hardener is already present in the raw materials mixed in the mixing step of claim 1.

In the invention of the reference Gardziella, on the other hand, mixing is carried out at a temperature at which a resin is softened, and hexamethylenetetramine as a hardener is added **afterward** and mixed under cooling.

For example, the Examiner cites Example 11 of Gardziella., which discloses heating 1 kg of a novolac to 100 °C and adding to a mixture including steel wool, brass shavings, coke, graphite, polyaramide fibers, barium sulfate, magnesium oxide and aluminum oxide, with mixing. The reference indicates that the novolac materials used begin to melt above 25 °C and at 70 °C have a viscosity between 2 to 70 Pa.s. Hexamethylenetetramine (50%) at 80 °C is **then** added, and mixing is continued while the mixture is being cooled (column 6, line 13).

Claim 5 has also been amended to recite that the binder component comprises a hardener.

Applicants therefore submit that claims 1-6, as amended, are not anticipated by and are non-obvious over Gardziella et al. '116.

Regarding the IDS.

The Examiner indicates that the cited reference JP07-116303 is not relevant to the present invention, and the Examiner has lined through this initialing space on the PTO Form 1449.

Amendment under 37 CFR 1.111
Takeshi YAMANE

U.S. Patent Application Serial No. 09/867,565
Attorney Docket No. 010694

Applicants note, however, that the initialing of a reference on the Form 1449 indicates that the reference has been **considered**, not that it is "relevant". Even if the reference is considered to be not material to the invention, the Examiner should still initial the PTO Form 1449 to indicate that the reference has been considered. The Examiner's remarks suggest that the Examiner has considered the reference and found it not to be material.

Applicants have therefore submitted a new PTO Form 1449 listing the JP07-116303 reference, and respectfully request that the Examiner initial this reference.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

Attached hereto is a marked-up version of the changes made by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

Amendment under 37 CFR 1.111
Takeshi YAMANE

U.S. Patent Application Serial No. 09/867,565
Attorney Docket No. 010694

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN & HATTORI, LLP


Daniel A. Geselowitz, Ph.D.
Agent for Applicant
Reg. No. 42,573

DAG/plb
Atty. Docket No. **010694**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



23850

PATENT TRADEMARK OFFICE

Enclosures: Version with markings to show changes made
Substitute Specification (15 pages)
PTO-1449 (1)

H:\FLOATERS\DAg\Amendments\010694 amend 4-28-03

Amendment under 37 CFR 1.111
Takeshi YAMANE

U.S. Patent Application Serial No. 09/867,565
Attorney Docket No. 010694

VERSION WITH MARKINGS TO SHOW CHANGES MADE
IN THE SPECIFICATION

The specification amendment only involves the renumbering of pages, as explained above.

Accordingly, no marked-up version is provided.

IN THE CLAIMS:

Please amend claims 1 and 5 as follows:

1. (Amended) A process for producing a friction material containing a fiber component, a binder component, which is a thermosetting resin comprising a hardener, and a filler component from raw materials of a friction material through at least a mixing step, a molding step and a heat-treating step, wherein the mixing of said raw materials in said mixing step is carried out by stirring and mixing the raw materials under heating in a dry system at a temperature where said binder is softened.

5. (Amended) A friction material comprising a fiber component, a binder component comprising a hardener and a filler component wherein raw materials for a friction material are stirred and mixed under heating in a dry system at a temperature where the binder is softened.